

# **Research Involving Persons at Risk for Impaired Decisionmaking**

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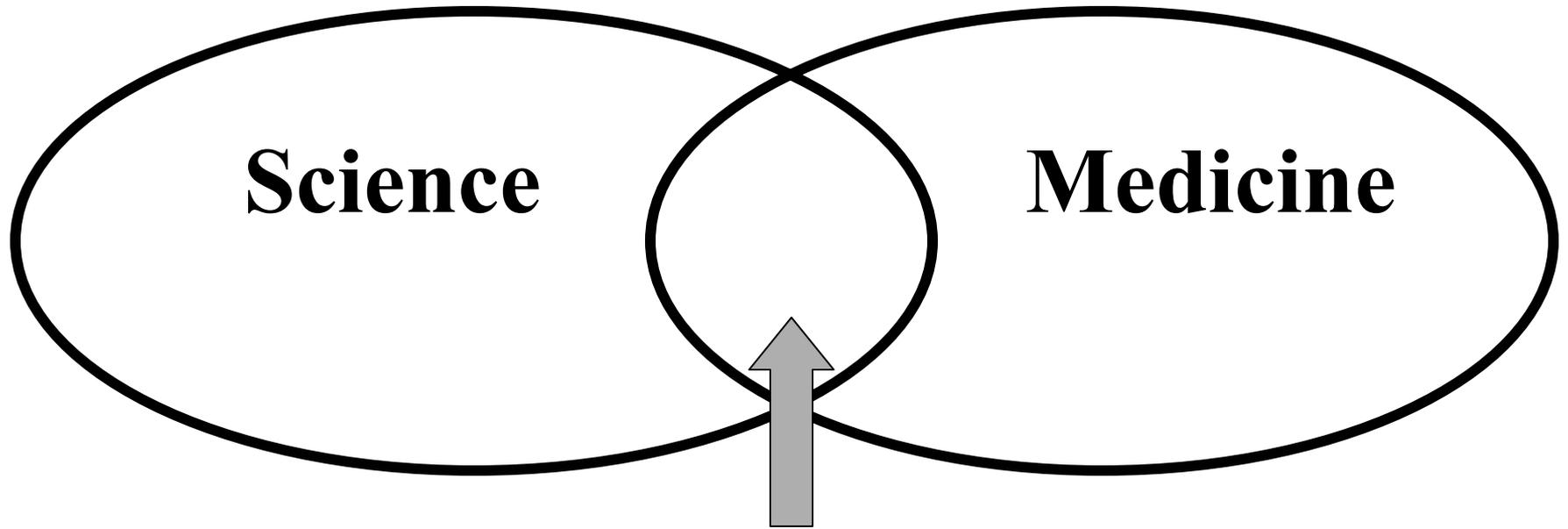
# Overview

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- **Dimensional issues and categorical decisions**
- **A recent case: the ARDS Network Trial**
- **An IRB approach to protocols involving subjects at risk for impaired decisionmaking capacity (DMC)**
- **Informed consent monitoring and Independent capacity assessment (ICA)**
- **Advance directives for research**

# Competing or Integrated Agendas?

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## Clinical Research

Research differs fundamentally from medical care  
in its purpose, methods, and justification of risks

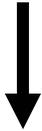
# Spectrum of Clinical Research

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**Healthy Control**

**“Non-therapeutic” study**

**Payment**



**Severely Ill Patient**

**Clinical trial**

**No payment**



# **The Acute Respiratory Distress Syndrome Network Trial**

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- **Multi-center (10 university centers), randomized trial of mechanical ventilation in patients with acute lung injury and ARDS**

**NEJM 2000; 342:1301-8**

# **NHLBI ARDS Network**

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- **Cleveland Clinic Foundation**
- **Denver Health Medical Center**
- **Duke University**
- **Johns Hopkins University**
- **UCSF**
- **University of Colorado**
- **University of Maryland**
- **University of Utah**
- **University of Pennsylvania**
- **University of Washington**
- **Vanderbilt University**
- **Massachusetts General Hospital**
- **University of Michigan**
- **Jefferson University**

# **The Acute Respiratory Distress Syndrome Network Trial**

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- **Multi-center (10 university centers), randomized trial of mechanical ventilation in patients with acute lung injury and ARDS**
- **Comparison of lower tidal volumes with “traditional” tidal volumes**

**NEJM 2000; 342:1301-8**

# **The Acute Respiratory Distress Syndrome Network Trial**

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- **Multi-center (10 university centers), randomized trial of mechanical ventilation in patients with acute lung injury and ARDS**
- **Comparison of lower tidal volumes with “traditional” tidal volumes**
- **Eligibility : intubated and mechanically ventilated**
  - **Manuscript stated “informed consent was obtained from the patients or surrogates at all but one hospital where this requirement was waived.”**

**NEJM 2000; 342:1301-8**

# **The Acute Respiratory Distress Syndrome Network Trial**

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- **Multicenter (10 university centers), randomized trial of mechanical ventilation in patients with acute lung injury and ARDS**
- **Comparison of lower tidal volumes with “traditional” (higher) tidal volumes**
- **Eligibility : intubated and mechanically ventilated**
- **Death was primary outcome measure**

**NEJM 2000; 342:1301-8**

# **The Acute Respiratory Distress Syndrome Network Trial**

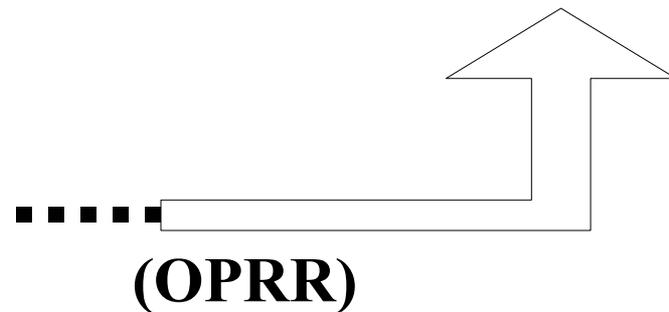
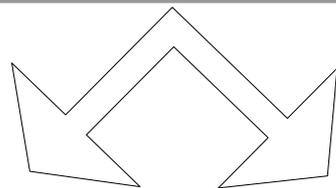
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- **Multicenter (10 university centers), randomized trial of mechanical ventilation in patients with acute lung injury and ARDS**
- **Comparison of lower tidal volumes with “traditional” (higher) tidal volumes**
- **Eligibility : intubated and mechanically ventilated**
- **Death was primary outcome measure**
- **Lower mortality observed in lower tidal volume group**

**NEJM 2000; 342:1301-8**

# Department of Health and Human Services (HHS)

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# **OHRP Findings and Concerns**

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- **Failure of IRB Review process**
  - **Waiver of consent**
  - **Inadequate informed consent documents**
- **Failure to obtain “legally effective informed consent of the subject or the subject’s legally authorized representative”**
  - **Inconsistencies with regard to state law allowing surrogate permission**

# OHRP Findings and Concerns

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“ OHRP is concerned that (a) both the subjects, because of their impaired mental state, and the subjects’ family members, because of the psychological stress of having a critically ill family member being treated in an intensive care unit, appear likely to have been vulnerable to coercion or undue influence; and (b) the IRB failed to insure that there were additional safeguards included in the study to protect the rights and welfare of these vulnerable subjects.”

**OHRP Determination letter, 2/7/02**

# **45 CFR 46.111**

## **Criteria for IRB Approval of Research**

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**(b) When some or all of the subjects are likely to be vulnerable to coercion or undue influence, such as children, prisoners, pregnant women, mentally disabled persons, or economically or educationally disadvantaged persons, additional safeguards have been included in the study to protect the rights and welfare of these subjects.**

# Central Questions

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- 1. Who is vulnerable because of a mental disability?**
- 2. What are the appropriate additional safeguards for vulnerable subjects?**
- 3. How can these safeguards be optimally implemented ?**

# Defining the Scope of Impaired Decisionmaking Capacity

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- **Imprecise language**
  - **competency, capacity, and consent**
  - **cognitive impairment does not necessarily mean decisional incapacity**
  - **mental disability, psychiatric illness/disorder, and vulnerability**

**“capacity to give informed consent for this study”**

# **Research With Impaired or Potentially Impaired Subjects**

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- **Medication trial for Alzheimer's Disease**
- **ECT trial for delusional depression**
- **Placebo-controlled study in acute mania**
- **MRS study of a delirium model**
- **Establishing cell lines for genetics studies of mental retardation**
- **Tryptophan depletion in autism (adults)**
- **Medication-free studies of schizophrenia**

# **The Most Contentious Case**

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**Research**

**with subjects who**

**can not provide informed consent**

**that offers**

**no prospect of direct medical benefit**

**and involves**

**more than minimal risk**

# **The Nuremberg Code**

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**The voluntary consent of  
the human subject is  
absolutely essential.**

**1946**

# Central Tension

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**The need for improved diagnosis  
and treatment through research.**

**versus**

**The danger of exploiting vulnerable  
individuals.**

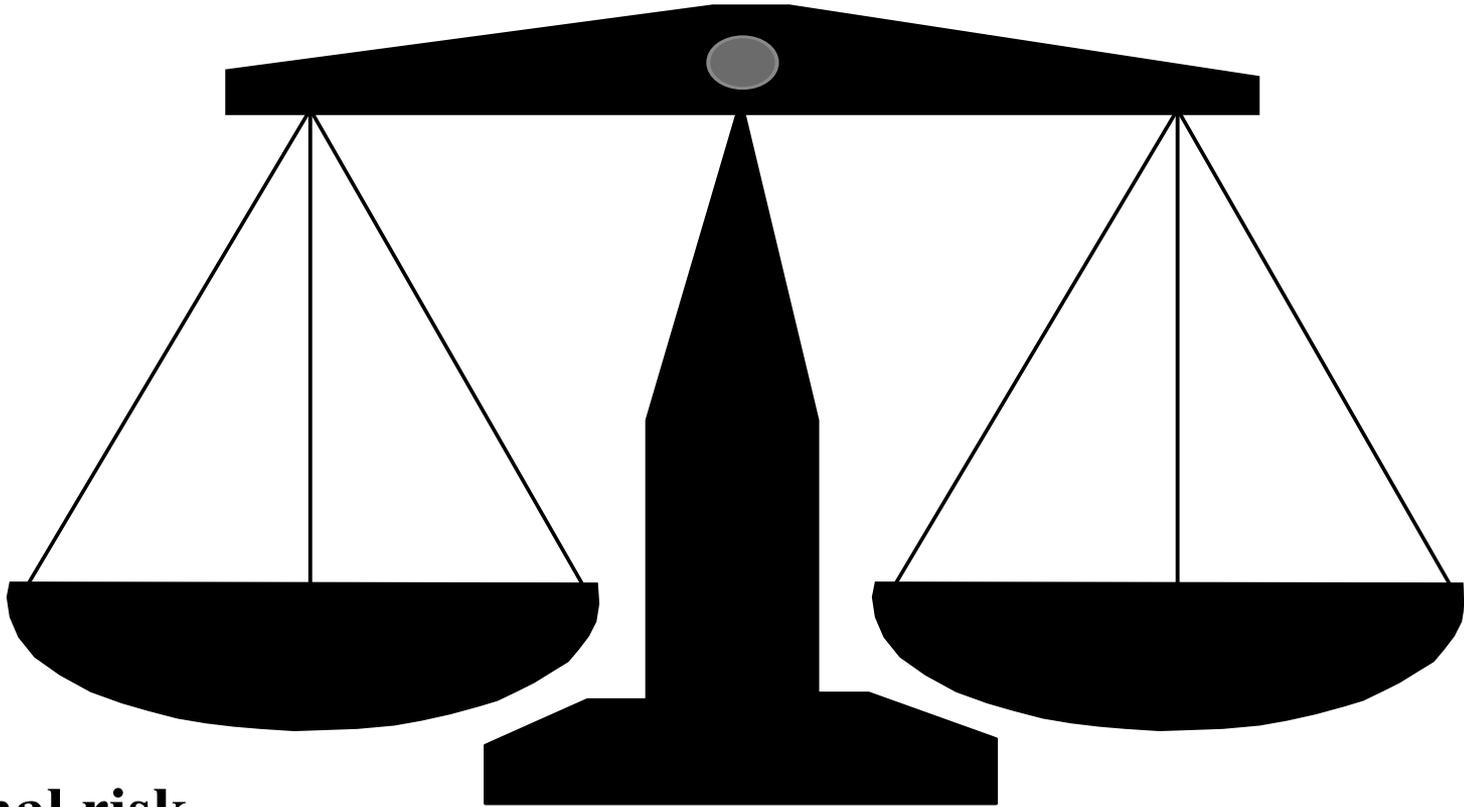
**Ethically  
problematic**  $\neq$  **unethical**

# Questions for the IRB

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- **Can the scientific question be answered with capacitated subjects?**
- **What are the relevant risks and benefits?**

# Institutional Review Board



- minimal risk
- minor increment over minimal risk (children)
- greater than minimal risk

- direct benefit to the subject
- benefit to society
- (indirect benefits to subject)

# Questions for the IRB

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- **Can the scientific question be answered with capacitated subjects?**
- **What are the relevant risks and benefits?**
- **What is the nature of the anticipated decisionmaking impairment?**

# Factors Influencing Decisionmaking Capacity

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- **Memory, attention, concentration**
- **Conceptual organization**
- **Psychosis and hallucinations**
- **“Executive” function**
- **Risk assessment**
- **Mood**
- **Intuition**
- **Insight**
- **Behavior**
- **Duty and altruism**
- **“Relatedness”**

# **Will Subjects Be Able to Provide Informed Consent?**

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- Subjects who are currently unable to provide informed consent**
- Subjects who will become unable to provide informed consent**
- Subjects who are at increased risk of becoming unable to provide informed consent**

# Questions for the IRB

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- **Can the scientific question be answered with capacitated subjects?**
- **What are the relevant risks and benefits?**
- **What is the nature of the anticipated decisionmaking impairment?**
- **Are adequate safeguards in place?**

# **Additional Protections**

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- **Clinical monitoring of ongoing research**
- **Data and safety monitoring boards**
- **Ethics consultation**

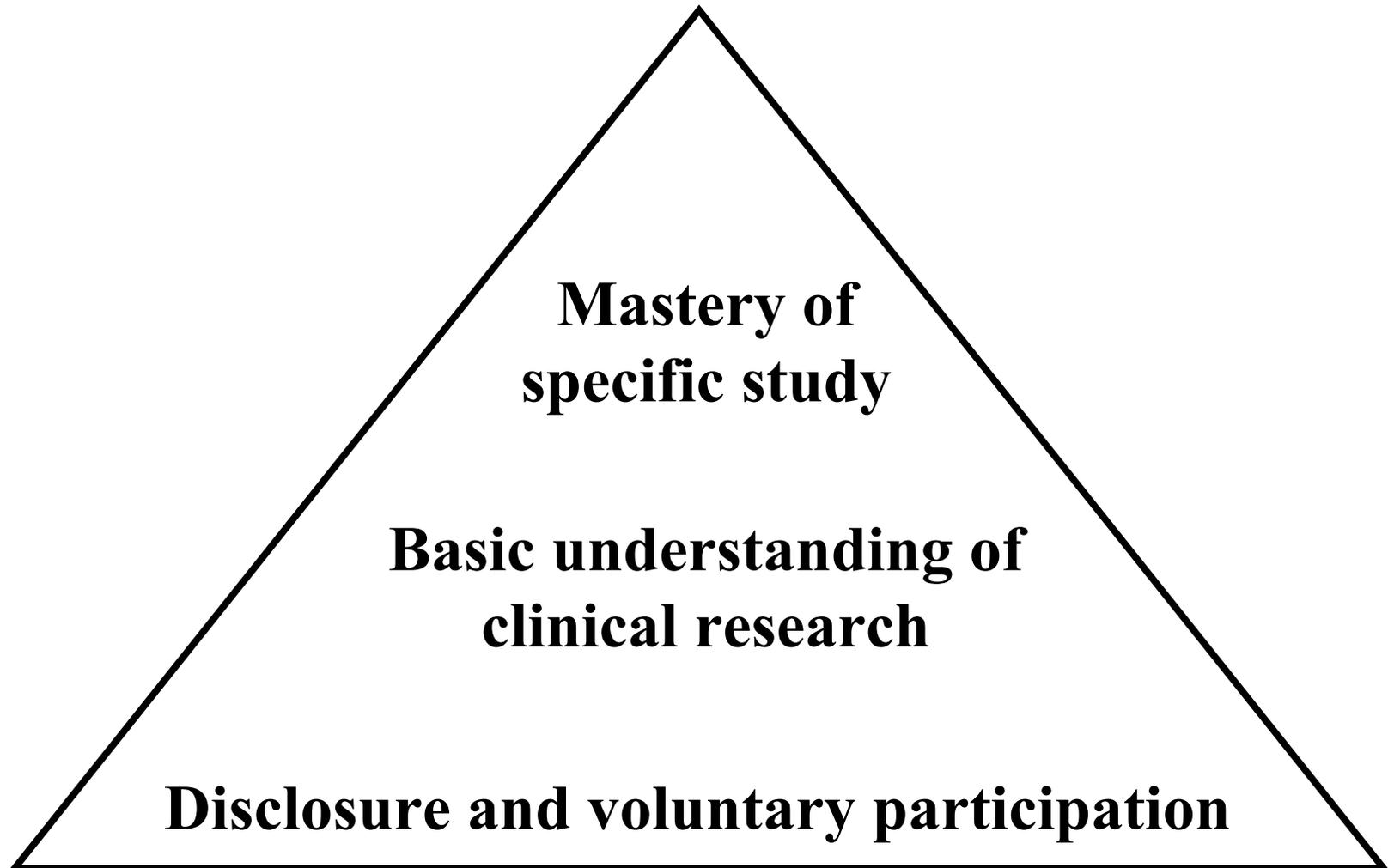
# **Additional Protections**

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- **Clinical monitoring of ongoing research**
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- **Ethics consultation**
- **Informed consent monitoring**
- **Independent capacity assessment**

# **Consent Monitoring and Independent Capacity Assessment**

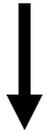
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# Decisionmaking Capacity

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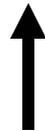
**Unable to make  
decisions**



**Able to make  
medical decisions**



**Fully  
capacitated**



**Able to assign a  
substitute  
decisionmaker**



**Appreciates the  
differences between  
clinical care and  
clinical research**

# **National Bioethics Advisory Commission (NBAC) Report**

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**“Research Involving Subjects at Risk for  
Impaired Decisionmaking Capacity” 1998**

# **National Bioethics Advisory Commission (NBAC) Report**

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**“Research Involving Subjects at Risk for  
Impaired Decisionmaking Capacity” 1998**

- **Recommendation #8:**

**“For research protocols that present  
greater than minimal risk, an IRB  
should require that an independent,  
qualified professional assess the  
potential subject’s capacity to  
consent...”**

# Triggers for Capacity Assessment

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- **Concern about a class of prospective subjects**
  - **Protocol designed to enroll “at-risk” subjects**
  - **Protocol that may precipitate loss of decisional capacity**

# Triggers for Capacity Assessment

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- **Concern about a class of prospective subjects**
  - **Protocol designed to enroll “at-risk” subjects**
  - **Protocol that may precipitate loss of decisional capacity**
- **Concern about an individual**
  - **Prior to or at the time of enrollment**
  - **During study participation**

# **Assessment of Decisionmaking Capacity (DMC)**

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- **Presumption of capacity/competence**
- **Medical aspects of assessment of DMC**
  - **Dehydration, medication toxicity, sickness, delirium, psychosis, severe depression, grief, mania**

# **Capacity to Give Informed Consent for Research**

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**Does this individual have a medical, neurological or psychiatric disorder that compromises his or her capacity to understand, appreciate and reason with respect to the details of a given study?**

**Clinical judgment**

**Can this person give informed consent and should they be enrolled into the study?**

**Ethical judgment**

# **Assessment of Decisionmaking Capacity (DMC)**

---

- **Presumption of capacity/competence**
- **Medical aspects of assessment of DMC**
  - **Dehydration, medication toxicity, sickness, delirium, psychosis, severe depression, grief, mania**
- **Who does this?**
- **How is it done?**

# **MacArthur Competence Assessment Tool (MacCAT-CR)**

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## **UNDERSTANDING**

**purpose of study; what tests and procedures**

**major risks, discomforts and possible benefits**

## **APPRECIATION**

**is the main purpose to benefit you?**

**differences between this study and regular care**

## **REASONING**

**if you decline, what will you do instead?**

**whose decision, can you stop participating?**

## **CHOICE**

# Assessment of Decisionmaking Capacity

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**Business  
as usual**

**NIMH  
IRP  
CORE**

**NBAC:  
mandated,  
formal ICA**

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**Clinical  
judgment of  
investigator**



**Independent,  
semi-structured  
interview based on  
McCAT-CR**

**McCAT-CR for  
each protocol**

# **Additional Protections**

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- **Clinical monitoring of ongoing research**
- **Data and safety monitoring boards**
- **Ethics consultation**
- **Informed consent monitoring**
- **Independent capacity assessment**
- **Advance directives and legally authorized representatives (e.g., guardianship, DPA)**

# **NIH Advance Directive for Health Care and Medical Research Participation**

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**I. Durable Power of Attorney**

**II. Advance Directive for Health Care**

**III. Advance Directive for Research Participation**

# NIH Advance Directive for Health Care and Medical Research Participation

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- If I lose the ability to make my own decisions, I do not want to participate in any medical research.
- If I lose...I am willing to participate in medical research that might help me.
- If...won't help me but might help others as long as it involves no more than minimal risk of harm to me.
- If...that won't help me but might help others even if it involves greater than minimal risk of harm to me.

# Summary and Recommendations

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- **Is it necessary to enroll vulnerable subjects?**
- **Decisional capacity with respect to providing informed consent for a specific study**
- **Subject vulnerability, research risks and benefits:**
  - **Determined by local IRB**
  - **Defined by study population and specific protocol rather than by diagnosis alone**

# Summary and Recommendations (Cont.)

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- **Investigators should describe in detail:**
  - **methods of assessing decisional capacity**
  - **procedures for informed consent or proxy consent**
  - **provision of adequate safeguards**
- **IRBs should promote increased use of:**
  - **independent capacity assessment**
  - **consent monitors**
  - **legally authorized representatives**
  - **research advance directives**
- **IRB discretion regarding intermediate risk**